

CLAIMS:

1. A power converter comprising:
a rectifier arrangement (D1-D4) having inputs coupled to AC power supply terminals;
a pair of series-connected capacitors (C1, C2) coupled across output terminals
5 of the rectifier arrangement;
a switch (S1) coupled between one of said AC power supply terminals and a midpoint of the pair of series-connected capacitors, the switch being open if a first AC voltage is applied to the AC power terminals, and the switch being closed if a second AC voltage is applied to the AC power terminals, the first AC voltage exceeding the second AC
10 voltage; and
an overvoltage protection circuit (D5, R30, D6) coupled between at least one of the inputs of the rectifier arrangement and the midpoint of the pair of series-connected capacitors.
- 15 2. A power converter as claimed in claim 1, the overvoltage protection circuit (D5, R30, D6) comprising a series connection of zener diodes having opposite conductivity directions.
3. A power converter as claimed in claim 2, the overvoltage protection circuit
20 (D5, R30, D6) further comprising a resistor (R30) in series with the zener diodes.
4. A power converter as claimed in claim 1, further comprising diodes (D7, D8) each connected parallel to a corresponding one of the capacitors.
- 25 5. A power converter as claimed in claim 2, the overvoltage protection circuit comprising resistors (R50, R60) connected in parallel to the zener diodes (D5, D6).
6. A power converter as claimed in claim 1, the overvoltage protection circuit being coupled across the switch.

7. A power converter as claimed in claim 1, the overvoltage protection circuit (D5, R30, D6) comprising a first branch between the midpoint and a first one of the rectifier arrangement inputs, and a second branch between the midpoint and a second one of the rectifier arrangement inputs.

8. A power converter as claimed in claim 7, each branch comprising a series connection of a diode (D9, D10) and a zener diode (D5, D6) having opposite conductivity directions.

9. A power converter as claimed in claim 8, the overvoltage protection circuit comprising resistors (R50, R60) connected in parallel to the zener diodes (D5, D6).